JUL 16 2004
PATENT & TRADEMARK OFFICE

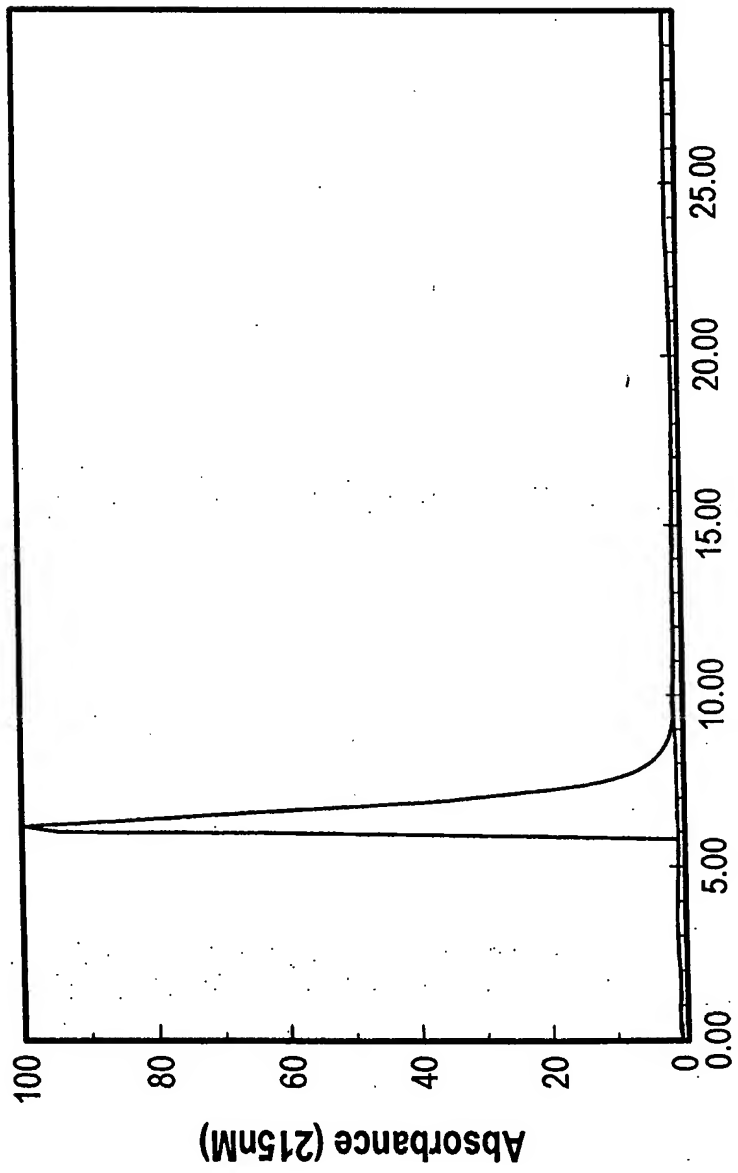

FIG. 1

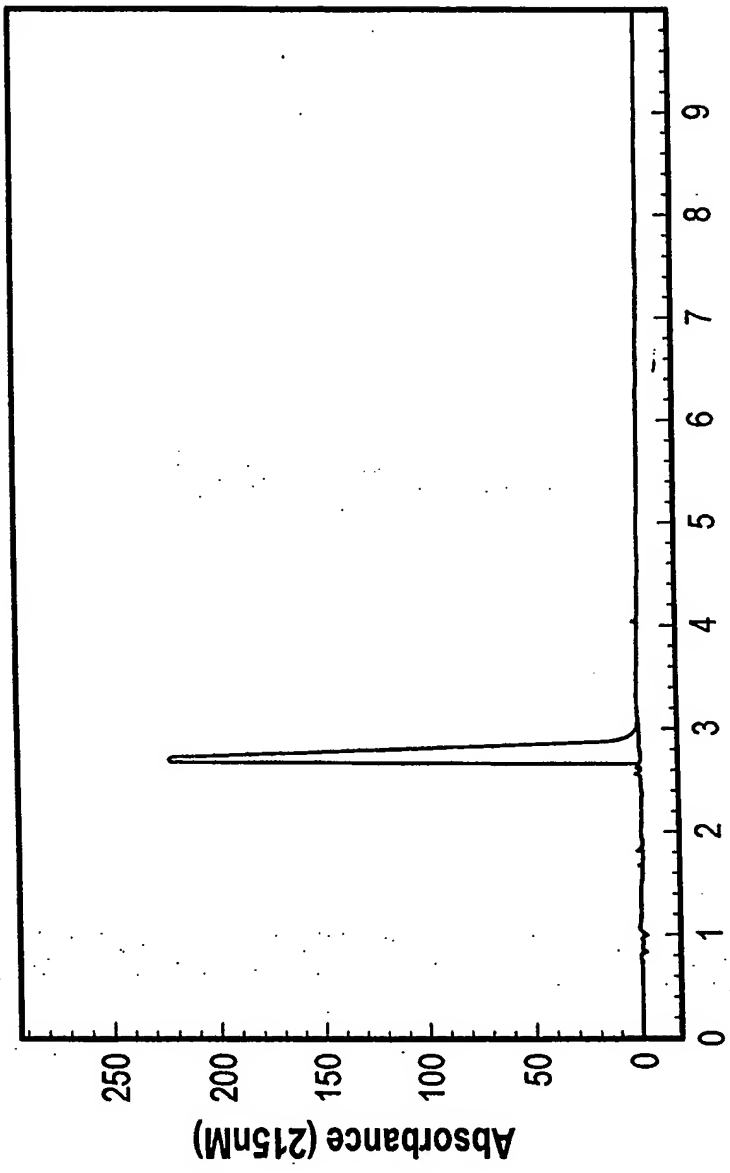

FIG. 2

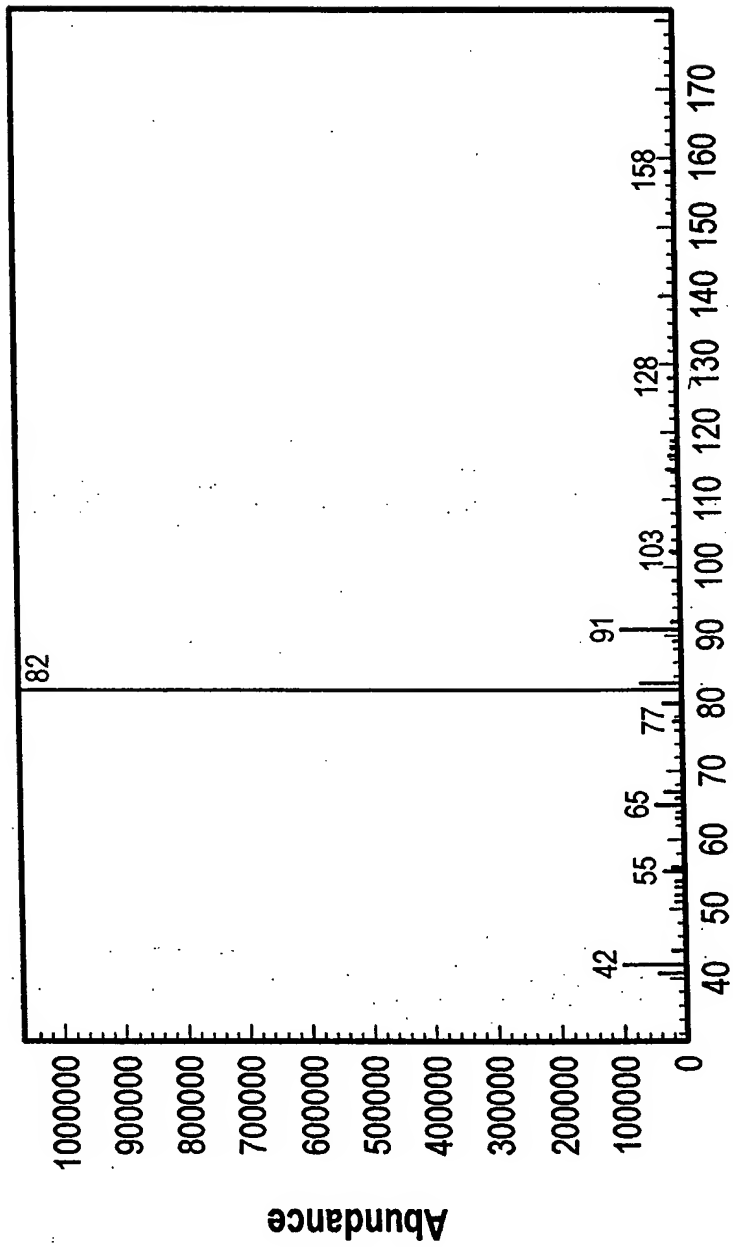
Abundance
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
0
M/Z
40
50
60
70
80
90
100
110
120
130
140
150
160
170
42
55
65
77
82
91
103
128
158

FIG. 3

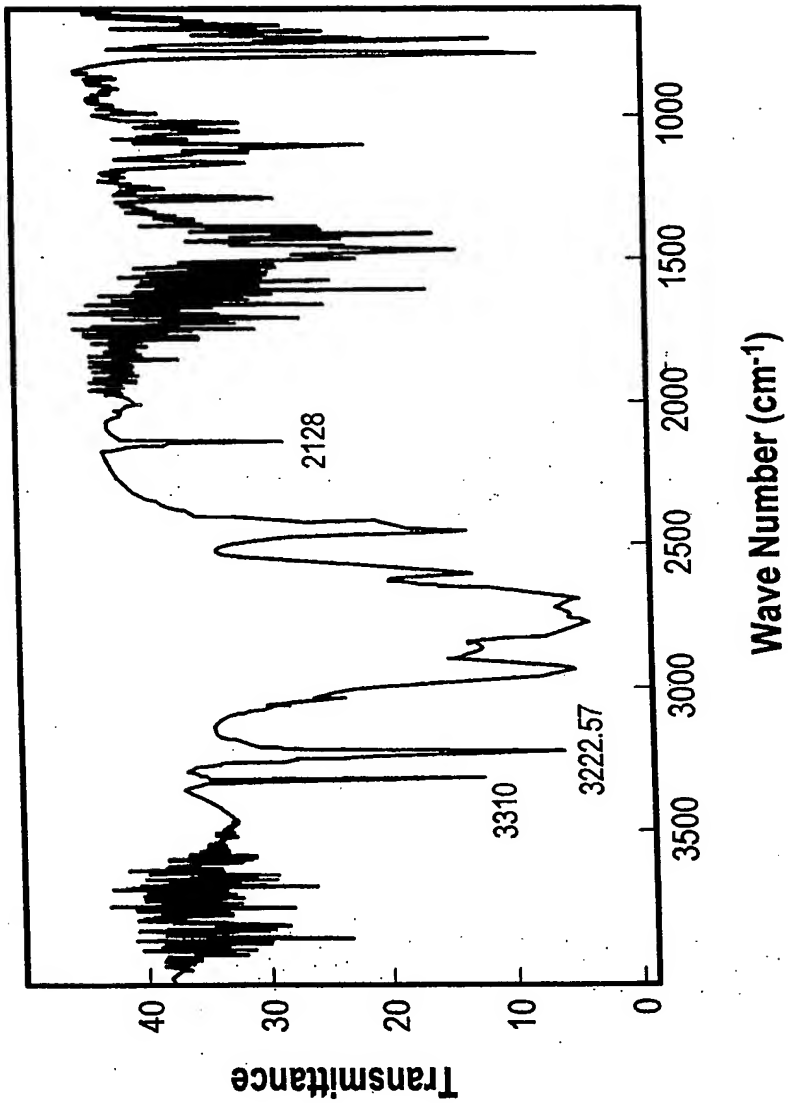
Transmittance
40
30
20
10
0
3500
3000
2500
2000
1500
1000
Wave Number (cm-1)
2128
3310
3222.57

FIG. 4

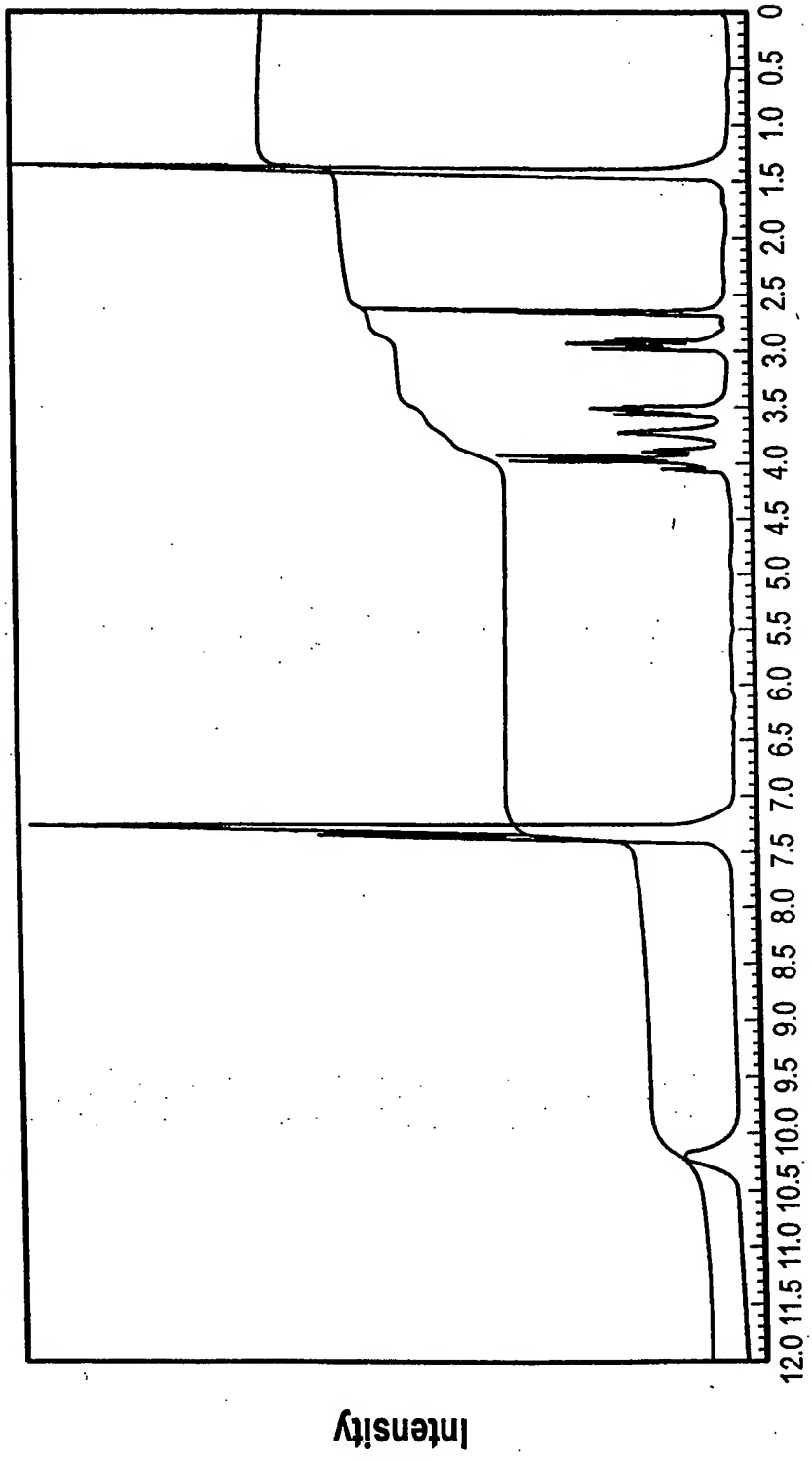
Intensity
12.0 11.5 11.0 10.5 10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0
Chemical Shift (ppm)

FIG. 5

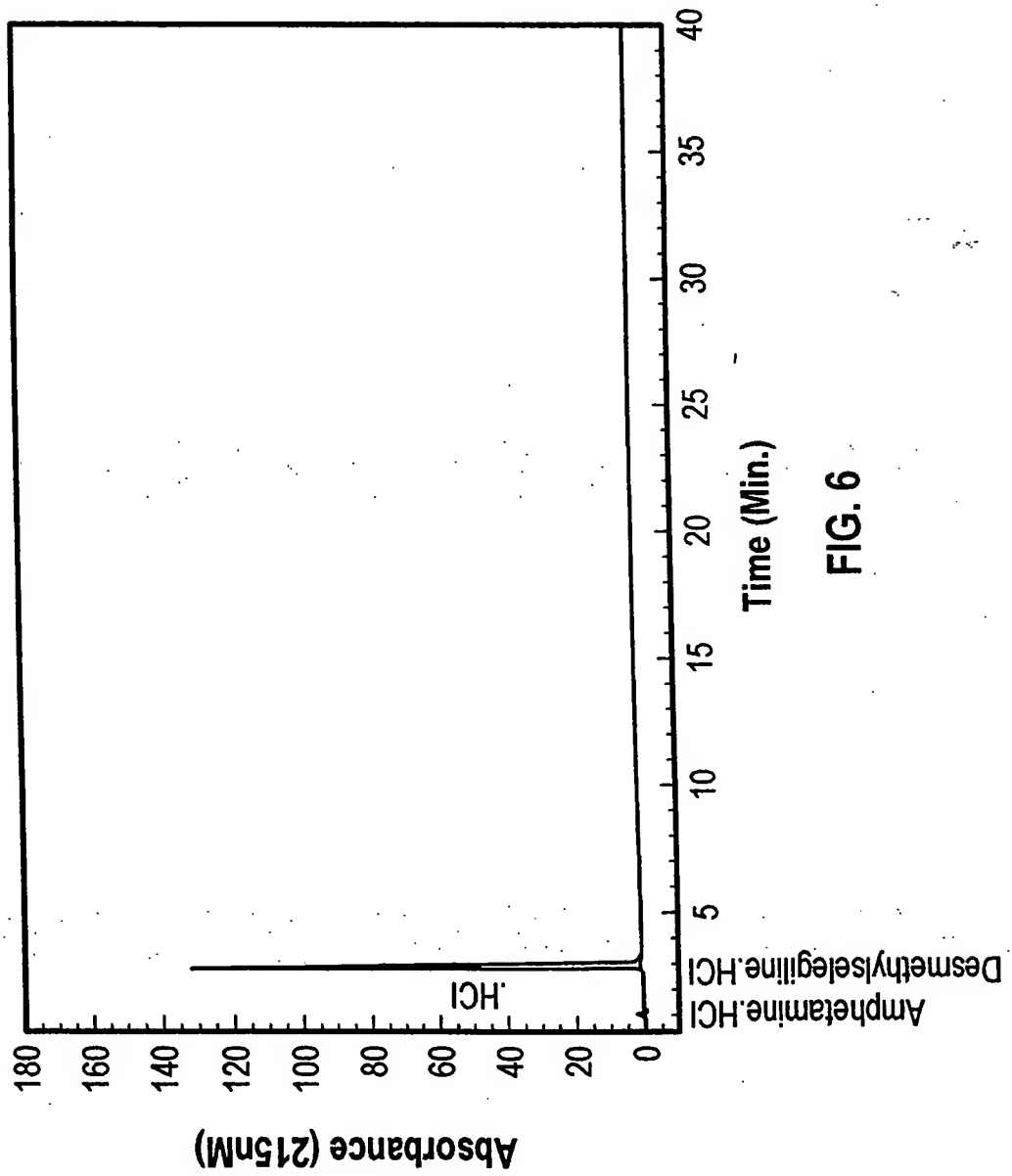
Absorbance (215nM)
180
160
140
120
100
80
60
40
20
0
5
10
15
20
25
30
35
40
Time (Min.)
Amphetamine.HCl
Desmethylselegiline.HCl
.HCl

FIG. 6

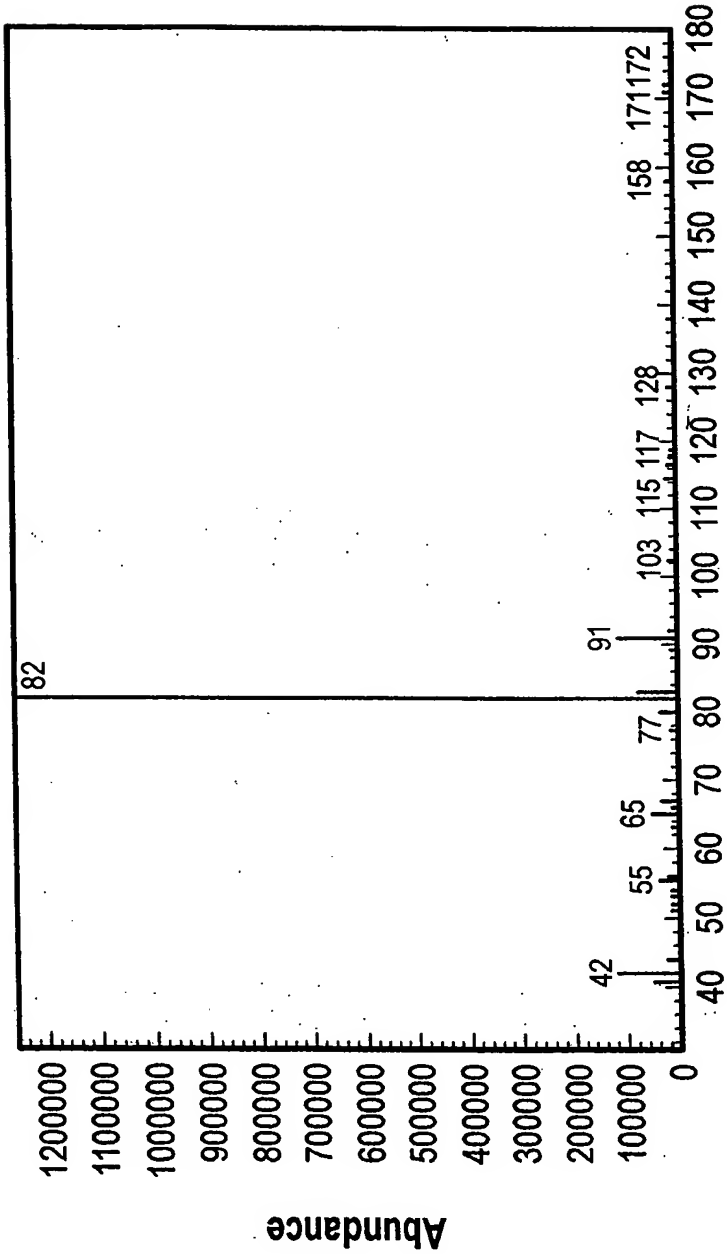
Abundance
1200000
1100000
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
0
M/Z
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
42
55
65
77
82
91
103
115
117
128
158
171
172

FIG. 7

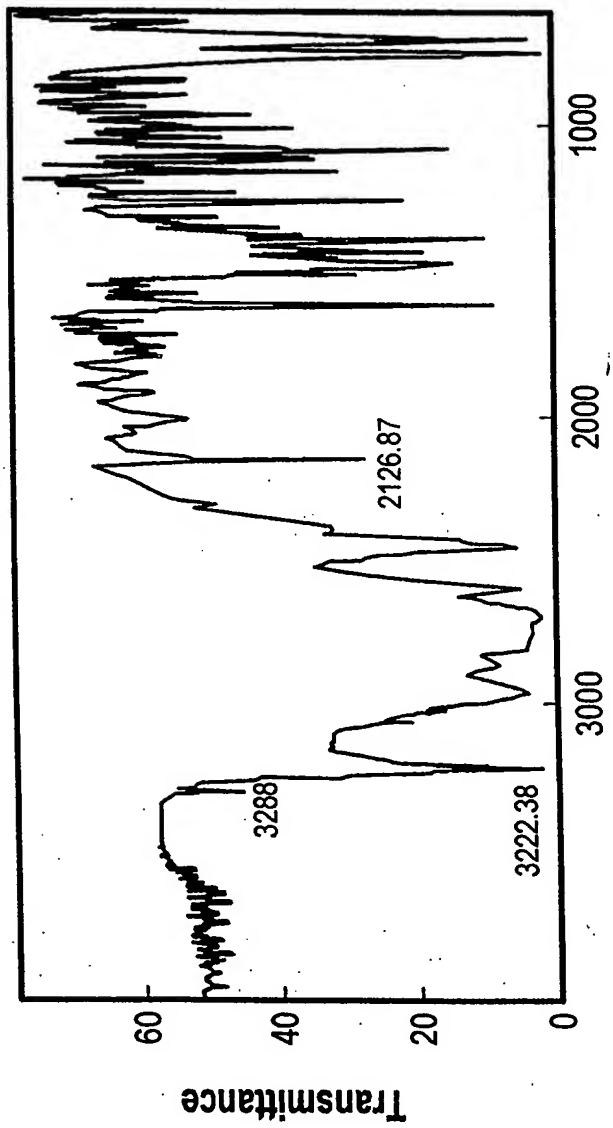
Transmittance
60
40
20
0
3000
2000
1000
Wave Number (cm-1)
3288
3222.38
2126.87

FIG. 8

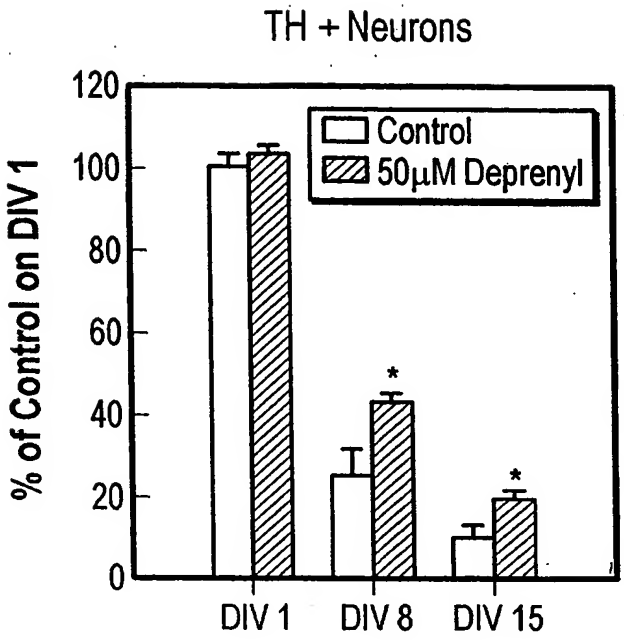
TH + Neurons
% of Control on DIV 1
120
100
80
60
40
20
0
Control
50μM Deprenyl
*
*
DIV 1
DIV 8
DIV 15

FIG. 9

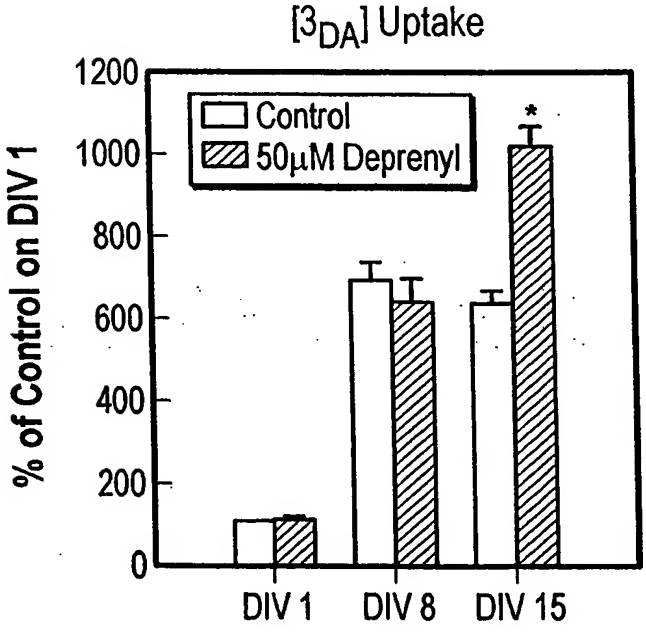
[3DA] Uptake
% of Control on DIV 1
1200
1000
800
600
400
200
0
Control
50μM Deprenyl
*
DIV 1
DIV 8
DIV 15

FIG. 10

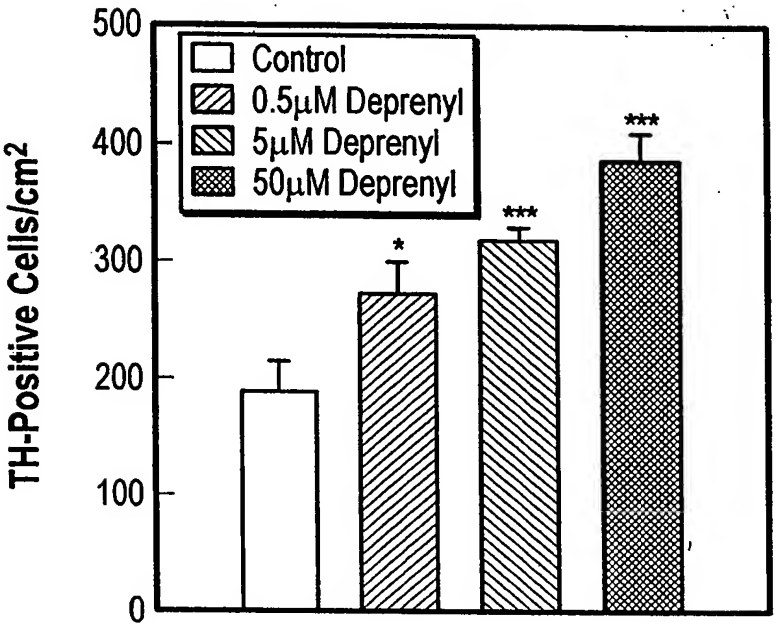
TH-Positive Cells/cm2
500
400
300
200
100
0
Control
0.5μM Deprenyl
5μM Deprenyl
50μM Deprenyl
*
***
***

FIG. 11

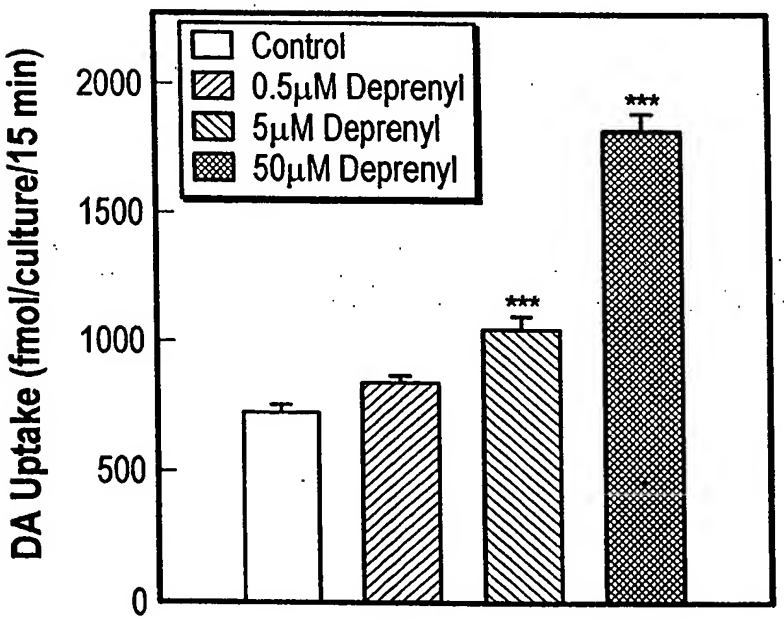
DA Uptake (fmol/culture/15 min)
2000
1500
1000
500
0
Control
0.5μM Deprenyl
5μM Deprenyl
50μM Deprenyl
***
***

FIG. 12

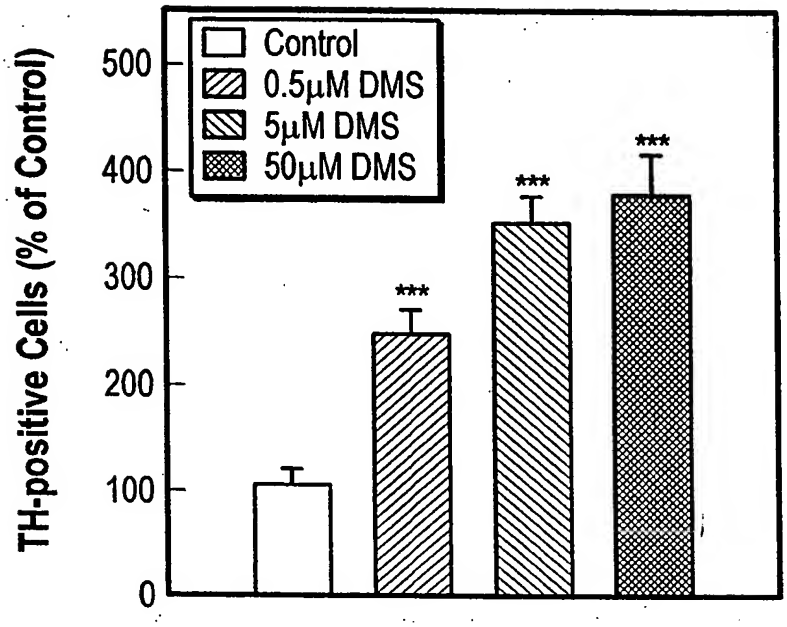
TH-positive Cells (% of Control)
500
400
300
200
100
0
Control
0.5μM DMS
5μM DMS
50μM DMS
***
***
***

FIG. 13

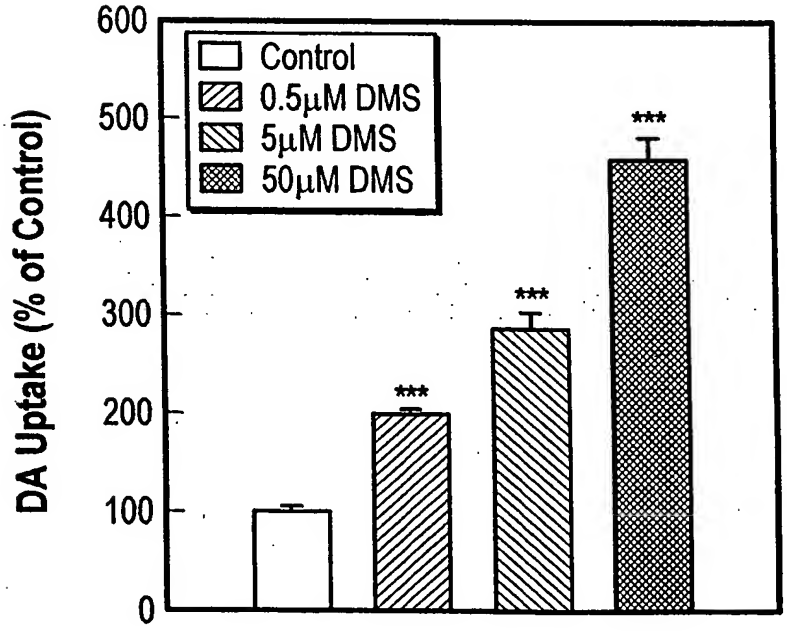
DA Uptake (% of Control)
600
500
400
300
200
100
0
Control
0.5μM DMS
5μM DMS
50μM DMS
***
***
***

FIG. 14

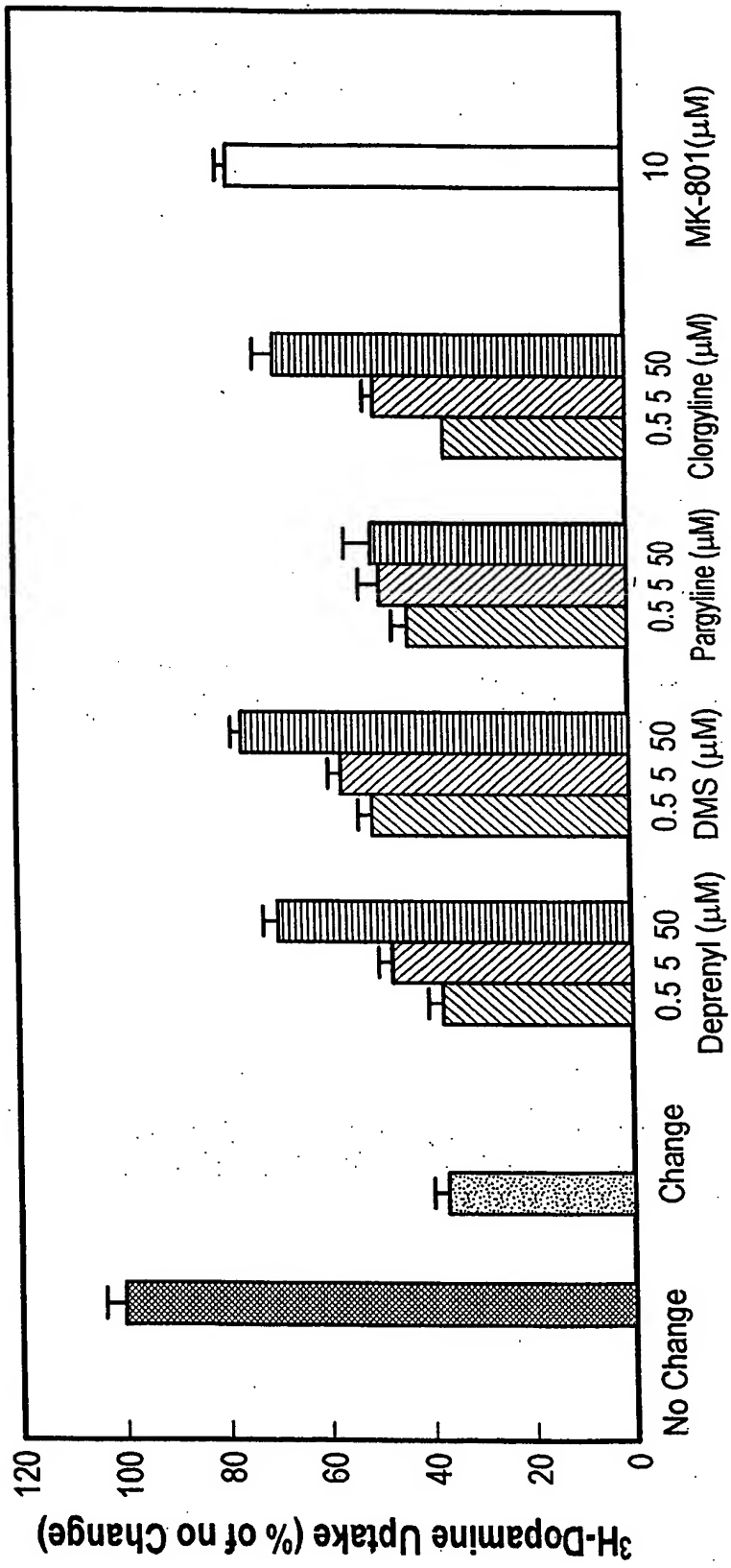
3H-Dopamine Uptake (% of no Change)
0
20
40
60
80
100
120
No Change
Change
0.5 5 50
Deprenyl (μM)
0.5 5 50
DMS (μM)
0.5 5 50
Pargyline (μM)
0.5 5 50
Clorgyline (μM)
10
MK-801(μM)

FIG. 15

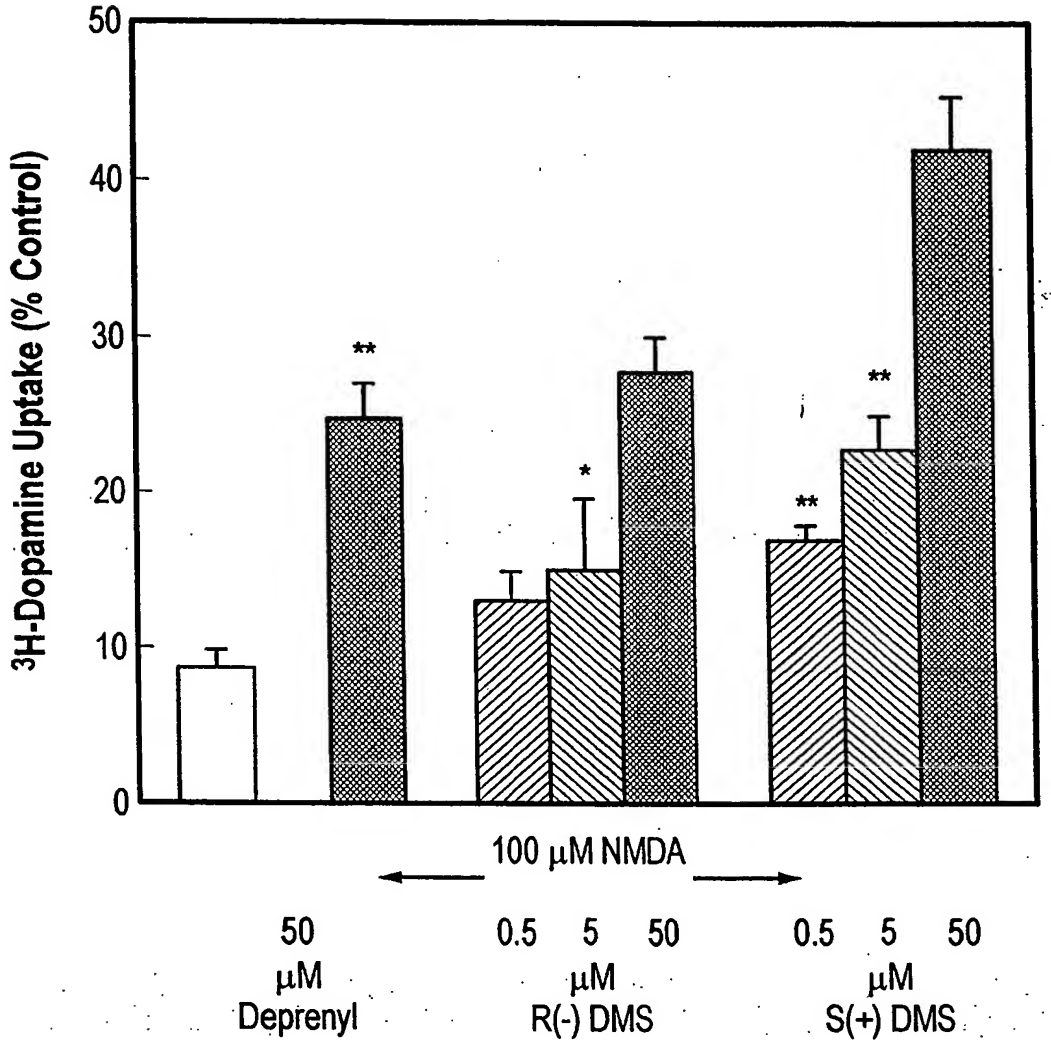
50
40
30
20
10
0
^{3}H-Dopamine Uptake (% Control)
**
*
**
**
100 μM NMDA
50
μM
Deprenyl
0.5
5
50
μM
R(-) DMS
0.5
5
50
μM
S(+) DMS

FIG. 16

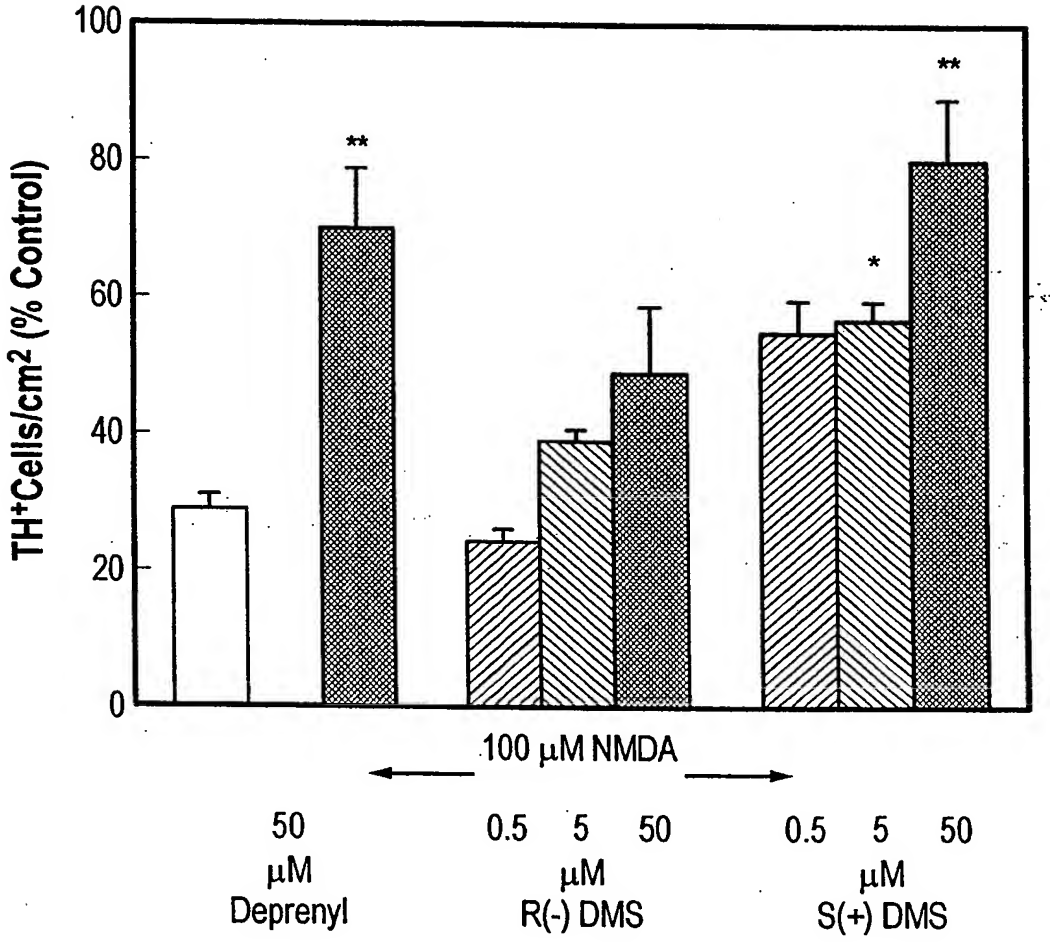
100
80
60
40
20
0
TH+Cells/cm2 (% Control)
**
**
*
100 μM NMDA
50
μM
Deprenyl
0.5
5
50
μM
R(-) DMS
0.5
5
50
μM
S(+) DMS

FIG. 17

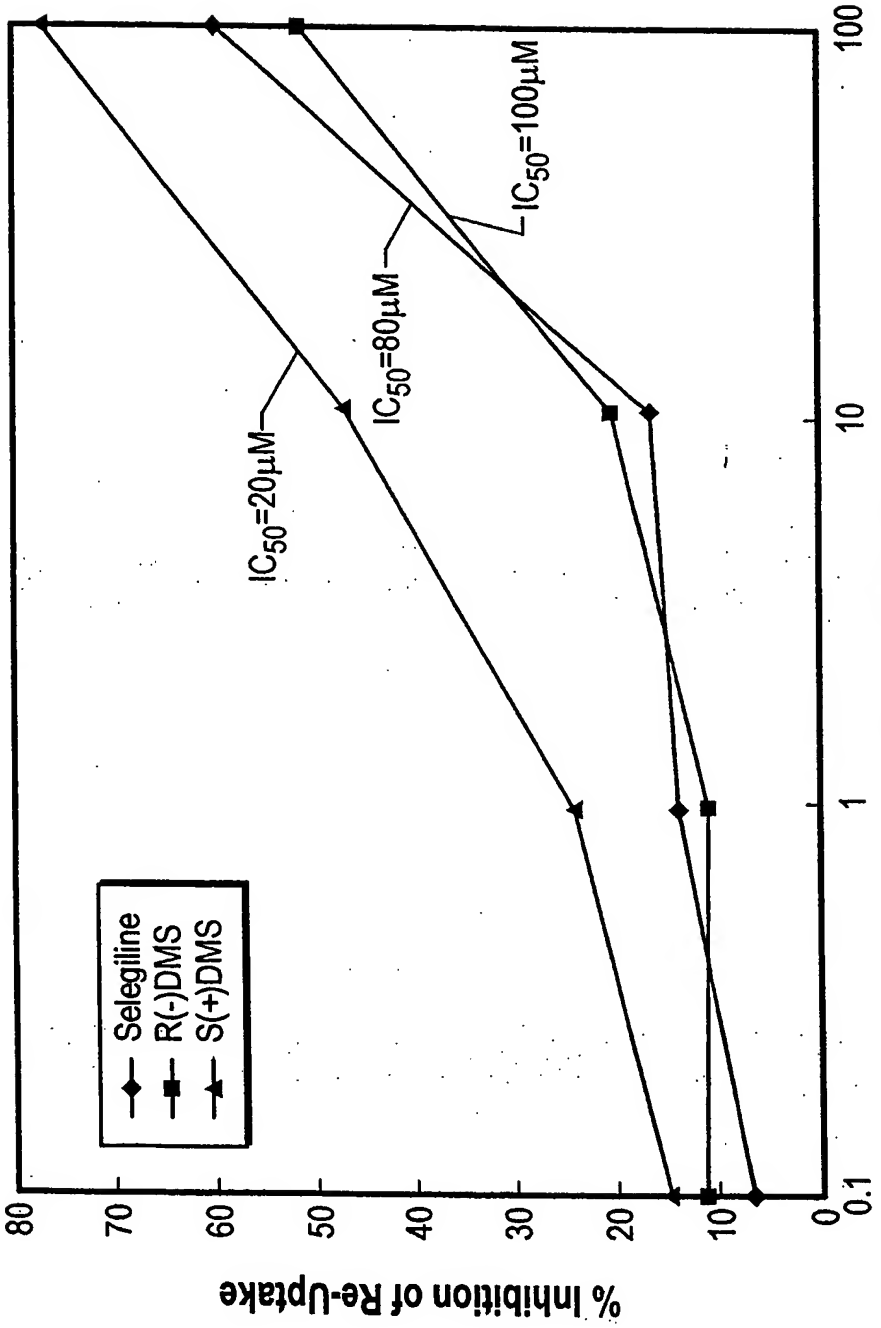
% Inhibition of Re-Uptake
0
10
20
30
40
50
60
70
80
0.1
1
10
100
Conc. (µMoles/L)
Selegiline
R(-)DMS
S(+)DMS
IC50=20µM
IC50=80µM
IC50=100µM

FIG. 18

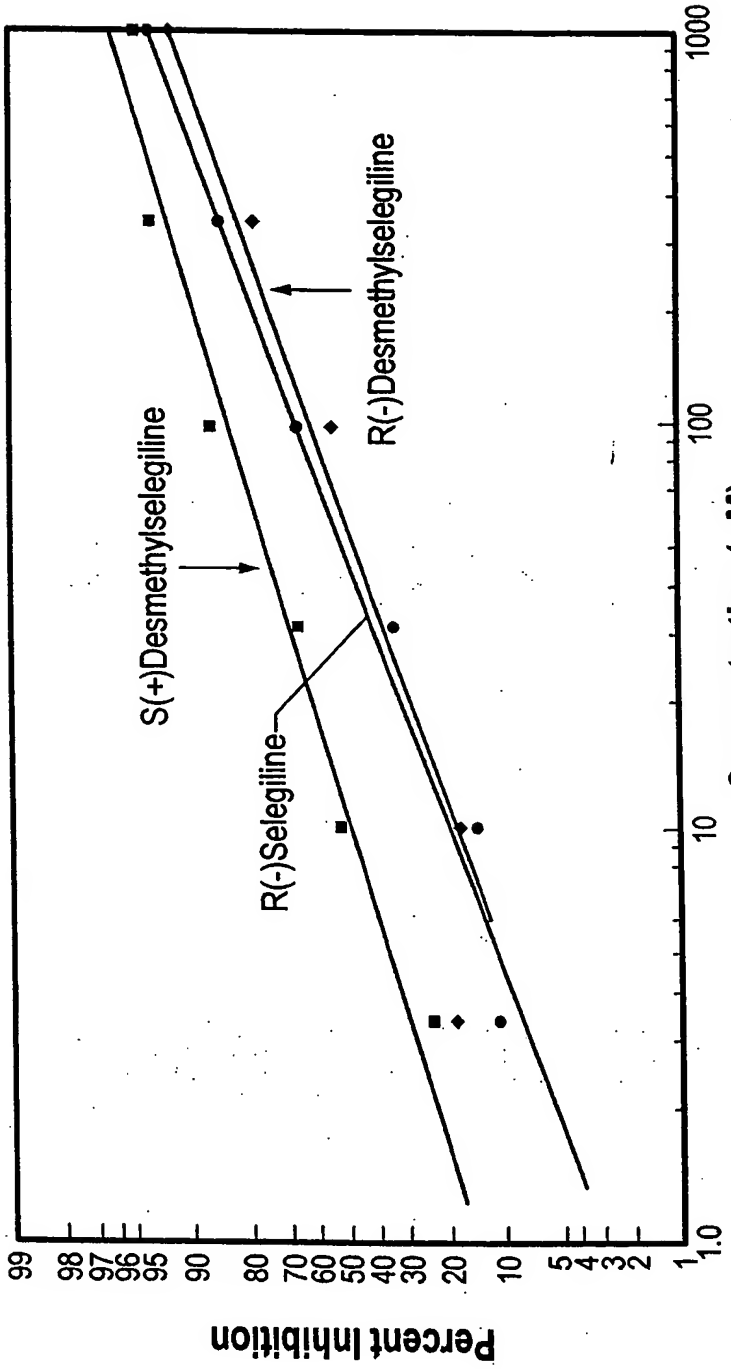
Percent Inhibition
99
98
97
96
95
90
80
70
60
50
40
30
20
10
5
4
3
2
1
1.0
10
100
1000
Concentration (μM)
S(+)Desmethylselegiline
R(-)Desmethylselegiline
R(-)Selegiline

FIG. 19

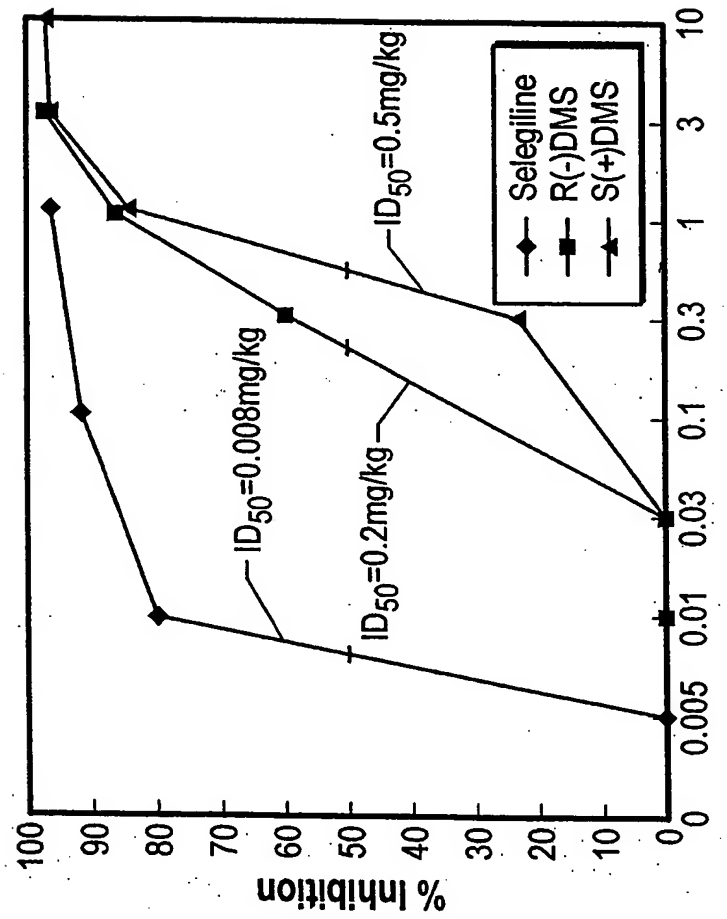
% Inhibition
Dose(mg/kg)
0
10
20
30
40
50
60
70
80
90
100
0
0.005
0.01
0.03
0.1
0.3
1
3
10
ID_{50}=0.008mg/kg
ID_{50}=0.2mg/kg
ID_{50}=0.5mg/kg
Selegiline
R(-)DMS
S(+)DMS

FIG. 20